

REMARKS

The Examiner has finally rejected claims 1 and 8 under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,478,535 to Smyth et al. Applicants acknowledge that the Examiner has found claims 2-7 allowable over the prior art of record.

The Smyth et al. patent discloses a multi-channel audio encoder in which a plurality of input channels (e.g., CH 1 - CH 5) are applied to respective channel encoders 26 "that produce respective sets of encoded subband signals 28, suitably 32 subband signals per channel." (col. 6, lines 61-63). Smyth et al. then states, at col. 7, lines 52-57:

"The decoder 18 receives the compressed data stream, separates out the coded data for each subband using an unpacker 40, decodes each subband signal 42 and reconstructs the PCM digital audio signal (Fsamp=48 kHz) using a 512-tap 32-band uniform interpolation filter bank 44 for each channel."

The decoder 18 is described in further detail at col. 8, line 24 to col. 9, line 15, again the intent being to reconstruct the PCM digital audio signal inputted to the encoder 12.

The subject invention concerns the processing of multi-channel audio signals to form reproduction (output) channels which may not correspond in number to the number of input audio channels. As indicated in claim 1, each of the input channels of the multi-channel audio signal is supplied through separate sub-channels covering distinct frequency sub-band domains. However, as claimed


in claim 1, the device of the subject invention includes sub-band combination circuits, each being supplied (from the signal supply means) with audio signals through respective input channels which lie in one and the same sub-band frequency domain." This is clearly shown in, for example, Fig. 2 in which the first sub-band of each input channel is applied to SBS_1 (sub-band combination circuit 1), the second sub-band of each input channel is applied to SBS_2 , ..., etc. The outputs from these sub-band combination circuits SBS_1 - SBS_n are applied to respective synthesis or reconstruction filters for forming each output channel.

Applicants submit that Smyth et al. neither discloses nor suggests the sub-band combination circuits as described above. In particular, the decoder 18 of Smyth et al. would not combine the sub-bands as is done by the sub-band combination circuits of the subject invention, in that the intent of the decoder 18 in Smyth et al. is to reconstruct the input PCM digital audio signal as inputted to the encoder.

In view of the above, Applicants believe that the subject invention, as claimed, is neither anticipated nor rendered obvious by the prior art, and as such, is patentable thereover.

Applicants believe that this application, containing claims 1-8, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

by 
Edward W. Goodman, Reg. 28,613
Attorney
Tel.: 914-333-9611